

REMARKS/ARGUMENTS

Favorable reconsideration of the present application is respectfully requested.

Claims 13 and 23 have been amended to clarify that the skirt is not simply the periphery of the male mold, i.e., that male former is “surrounded by a passage between the male former and a surrounding skirt.” This passage is shown in the figures.

Claims 13 and 23 have been further amended to clarify that the glass sheets are continuously supported by the female former until at least the commencement of the pressing step. The basis for this is found at lines 22-27 of page 16, and in the original recitation that the pressing step is continued when the vacuum is applied.

Claims 13 and 23 have been yet further amended to clarify that the partial vacuum is applied to “an uppermost one” of the superposed glass sheets through the convex surface of the male former. Basis for this is inherent in the geometry shown in the figures.

Concerning the objection to Claims 13 and 23 being substantial duplicates, it is again noted that Claim 23 recites that the convex surface of the male former is at least partly air permeable, whereas Claim 13 recites that it has means for applying a partial vacuum. These claims therefore have different scopes since the “means” limitation of Claim 13 is governed by 35 U.S.C. § 112, ¶6.

Claims 13, 17 and 19-23 were again rejected under 35 U.S.C. § 102 as being anticipated by Morin, and Claims 14-16 and 18 were rejected under 35 U.S.C. § 103 as being obvious over Morin, or Moran in view of Reese. Applicants have already provided arguments traversing these grounds of rejection, which arguments are herein incorporated by reference. As part of such arguments, Applicants identified at least four distinctions of the claims over Morin: (1) the claims recite continuously supporting the glass sheets with the female former, whereas the partial vacuum in Morin lifts the glass sheets from the annular counter-mold 4; (2) the claims recite the commencement of the application of the partial

vacuum after the upper glass sheet contacts the male former, whereas the partial vacuum in Morin commences before the glass sheets have made contact with the male former 3; (3) as a corollary to point (2), the pressing step in Morin does not “continue” at the commencement of the partial vacuum; and (4) the claims recite that the superposed glass sheets remain in contact with the male former after the pressing step, under the effect of a partial vacuum applied through the male former and through a skirt surrounding the male former, whereas a vacuum applied through the male former and the skirt are not disclosed in Morin.

The outstanding Office Action has addressed these points. It is nonetheless respectfully submitted that the amended claims define over this prior art for the reasons set forth below:

(1) The claims recite continuously supporting the glass sheets with the female former, whereas the partial vacuum in Morin lifts the glass sheets from the annular counter-mold 4. According to the Office Action, this only requires continuous support “during the placement step.” Claims 13 and 23 have therefore been amended to clarify that “the glass sheets are continuously supported by the female former until at least the commencement of the pressing step.” On the other hand, as Morin explicitly describes at lines 52-57 of col. 6:

As soon as the annular countermold 4 has completed its rise and the blank has been formed, the glass sheet or sheets undergo suction action by a vacuum created at the periphery of the male mold 3. Thus, the glass is slightly disengaged from the annular countermold 4 (FIG. 3) and is engaged against the convex surface of the male mold 3.

Fig. 3 of Morin illustrates the glass sheets being raised from the counter-mold 4, whereas the step of pressing the glass sheets between the male former 3 and the counter-mold 4 does not occur until Fig. 4 (col. 7, lines 1-2).

(2)-(3) The claims recite the commencement of the application of the partial vacuum after the upper glass sheet contacts the male former, whereas the partial vacuum in Morin commences before the glass sheets have made contact with the male former 3, and the pressing step in Morin [which has not yet commenced] does not “continue” at the commencement of the partial vacuum. According to the Office Action, “since Morin discloses that the glass is pressed between the male and female molds . . ., it is inherent that the application of the partial vacuum commences after the upper glass sheet has made [contact] with the male former.” Similarly, in paragraph 5 the Office Action states that “when the glass sheets are placed into contact with the male former . . ., there would be brief pressing before the vacuum has commenced.”

The above assertions of the Office Action are respectfully traversed. As noted above, Morin explicitly describes that “the glass sheet or sheets undergo suction action” beginning “as soon as the annular countermold 4 has completed its rise,” whereas the glass sheet only thereafter disengages from the counter-mold to contact the male former. Indeed, it is the vacuum that causes the disengagement from the counter-mold to contact with the male former.

The assertion in the Office Action that “it is inherent” in Morin that the application of the partial vacuum commences after the upper glass sheet has made contact with the male former or that “there would be brief pressing before the vacuum has commenced” is not understood since the commencement of the partial vacuum is explicitly disclosed as occurring before the upper glass sheet has made contact with the male former. If the basis for these allegations is that the application of the partial vacuum is inherently interrupted by the engagement of the glass sheets with the male former and thereafter recommences, it is respectfully noted that there is no evidence of this in Morin, nor has a basis grounded in

factual evidence or technical reasoning been put forth to reasonably support a determination that this *necessarily* occurs. MPEP 2112(IV).

(4) The claims recite that the superposed glass sheets remain in contact with the male former under an effect of a partial vacuum applied through the male former and the skirt surrounding the male former, whereas a vacuum applied through the male former and the skirt is not disclosed in Morin. That is, according to the invention, upon discontinuing the pressing step, the uppermost glass sheet is held on to the male former by the vacuum applied through the male former. This vacuum application is advantageous where the glass sheets have already been pressed between the male and female formers since the male former can trap air pockets, but it cannot maintain more than one sheet of glass in contact with the male former. The remaining glass sheets are instead held by the vacuum applied through the passage at the surrounding skirt.

There is no description in Morin of continuing the vacuum after the pressing step, which is the “final stage” (col. 7, line 1). As to the claimed partial vacuum applied through the male former, the Office Action considers that this is either taught at col. 5, line 5 of Morin or would have been inherent or obvious from the vacuum applied at the periphery of the male former or the desire expressed in Morin for a “less violent” contact. However, line 5 of col. 5 only describes a vacuum “created at the periphery;” it provides no disclosure of applying a partial vacuum through the convex surface of the male former. Moreover, a vacuum “created at the periphery of the male mold” would not inherently apply a vacuum “through” the surface of the male former. Finally, since the vacuum would draw the glass sheets toward the male former, a desire for a “less violent” contact would have taught *away* from the claimed partial vacuum.

As to the claimed vacuum applied through the “skirt,” this is now recited a partial vacuum applied through the passage between the male former and the skirt surrounding the

male former. The claims therefore distinguish over the interpretation of the periphery of the former comprising the skirt.

Concerning dependent Claim 20, this claim recites both the means for discharging the skeleton from the bending cell and the means for moving vertically the annular female former. The outstanding Office Action asserted that Morin discloses means for discharging the female mold, but not means for discharging the skeleton. As previously explained, Morin does *not* use a skeleton because the glass is only pre-bent by the annular former 4. Claim 20 defines over Morin for this reason as well.

Dependent Claim 15 further recites a *positive* gas pressure applied through the male former in a central region of the glass sheets. The outstanding Office Action asserted that this would have been obvious in Morin to “aid in producing the shape of the male mold.” This is respectfully traversed, both because a positive gas pressure would push the glass sheets away from the mold – thereby detracting from the shape of the mold – and because the shape of the glass in Morin is determined by pressing between the molds.

Applicants therefore believe that the present application is in a condition for allowance and respectfully solicit an early Notice of Allowability.

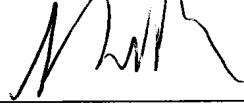
Respectfully submitted,

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